

I. Amendments

In the Claims

Please delete claims 20 and 26 without prejudice to Applicant's right to pursue the subject matter of those claims in continuation, reissue, reexamination or other applications related or unrelated to this application.

Please amend the following claims to read as shown. The changes are shown in Attachment A to this paper entitled Version Showing Changes Made.

Claim 4. (Amended) An air conditioning or refrigeration system comprising:
a compressor having a refrigeration fluid suction port and a refrigeration
fluid discharge port; and
a valve, in fluid communication with the compressor, operative to cycle
with a cycling time shorter than the response time of the system to control fluid
flow to the compressor to modulate compressor capacity.

Claim 9. (Amended) An air conditioning or refrigeration system comprising:
a compressor having a refrigeration fluid suction port and a refrigeration fluid
discharge port, being operative to compress refrigeration fluid received via the
suction port and discharged via the discharge port;
a refrigerant flow line operative to carry refrigeration fluid and in fluid
communication with the compressor;
a capacity controller operative to generate a control signal corresponding
to desired capacity modulation; and
a valve in the refrigerant flow line, which is operative is operatively
connected to the controller to receive capacity control signals from the controller
and operative in response to capacity control signals received from the controller

*Substitute Supplemental Response to Office Action for US 09/921,334
Reissue of U.S. 6,047,556
Page 2 of 10*

to cycle with a cycling time shorter than the response time of the system to control fluid flow to the compressor to modulate compressor capacity.

Claim 14. (Amended) An air conditioning or refrigeration system comprising:

a compressor having a refrigeration fluid suction port and a refrigeration fluid discharge port, being operative to compress refrigeration fluid received via the suction port and discharged via the discharge port;

a refrigerant flow line operative to carry refrigeration fluid and in fluid communication with the compressor;

a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and

a solenoid valve in the refrigerant flow line which is operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to control fluid flow to the compressor to modulate compressor capacity.

Claim 17. (Amended) A capacity modulated compressor for an air conditioning or refrigeration system having a refrigerant flow line, comprising:

a compressor housing comprising a compression chamber, at least one refrigerant injection port operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge port operative to pass compressed refrigerant from the compression chamber;

a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and

a valve operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle with a cycling time shorter than the response time of the system to control fluid flow to the compressor to modulate compressor capacity.

Substitute Supplemental Response to Office Action for US 09/921,334

Reissue of U.S. 6,047,556

Page 3 of 10

Claim 24. (Amended) A capacity modulated compressor for an air conditioning or refrigeration system having a refrigerant flow line, comprising:

a compressor housing comprising a compression chamber, at least one refrigerant injection port operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge port operative to pass compressed refrigerant from the compression chamber;

a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and

a solenoid valve operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to control fluid flow to the compressor to modulate compressor capacity.

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